What Does National Incident Management System (NIMS) Compliance Mean for Drinking Water and Wastewater Systems?

As utility personnel plan and prepare for emergencies, a common question arises: "What does NIMS compliance mean for the water sector?" Although FEMA developed NIMS compliance requirements for state, local, and tribal governments, they have not developed requirements for individual sectors, such as the water sector. In the absence of specific requirements, this document provides recommended water sector NIMS implementation objectives. It is recommended that public drinking and wastewater systems coordinate with their local emergency management agency (EMA) when implementing these objectives to check whether the local government NIMS compliance requirements also apply to their utilities.

What is NIMS?

NIMS, originally published in 2005 in response to Homeland Security Presidential Directive (HSPD) 5, tasked the Department of Homeland Security to develop and administrate NIMS. HSPD 5 also requires states, territories, local jurisdictions, and tribal entities to adopt NIMS planning and response concepts. NIMS establishes a comprehensive, national approach to incident management that is applicable at all jurisdictional levels, across all agencies, and to all domestic incidents- regardless of size. NIMS is flexible but still provides a set of standardized organizational structures, as well as requirements for processes, procedures, and systems designed to improve the ability of responders (public and private) to work together. Essentially, NIMS promotes the use of mutual aid and assistance. Many Water and Wastewater Agency Response Networks (WARNs) use the concepts of NIMS for a more successful program.

What are the Benefits NIMS?

Implementing NIMS helps the water sector to:

- Strengthen response capabilities by following a nationally adopted, standard practice for emergency response;
- Improve mobilization, deployment, utilization, tracking, and demobilization of needed resources;
- Establish protocols for improved communication with other first responders and support personnel;
- Reduce the time delay to access mutual aid and assistance resources; and
- Integrate with other local and state emergency response agencies.

What are the Main Components of NIMS?

There are five main components of NIMS:

- preparedness;
- communications and information management;
- resource management;
- command and management; and
- ongoing management and maintenance.

Each of these components is described in detail in the NIMS document and includes a number of key themes. As utilities begin to incorporate NIMS concepts and principles into their preparedness planning, many are surprised to learn that they are now considered first responders. Homeland Security Presidential Directive 8, published in 2003, formally acknowledged the vital role that public works (which includes drinking water and wastewater utilities) personnel play in response to an incident. NIMS helps all first responders to work together and to provide mutual aid and assistance to one another as effectively and efficiently as possible.

Preparedness

Many water utility professionals believe that implementing NIMS only requires taking one or two classes on-line. However, a utility should adopt NIMS by incorporating it into its emergency preparedness, response, and security activities. Some utilities have issued a policy formally requiring the use of NIMS principles. Subsequently, these utilities have updated their existing plans and procedures to ensure consistency with NIMS. As defined in the NIMS document, preparedness covers the elements of planning, training, and exercises.

Planning

Many utilities are implementing NIMS by preparing Emergency Response Plans (ERPs), business continuity plans, and becoming members of Water and Wastewater Agency Response Networks (WARNs). If your utility has not yet developed an ERP or considered joining a WARN, it is in your best interest to do so.

Training

The second element of preparedness is training. At a minimum, all utility staff who would likely be involved in the response to an incident should complete the Basic

Incident Command System (ICS) IS-100a and NIMS, An Introduction IS-700a courses. These courses are offered for free both on-line through FEMA's Independent Study website at http://training.fema.gov/IS/NIMS.asp and in-person by the USEPA at various locations throughout the country. One advantage to attending a USEPA-sponsored training is that the standard FEMA courses have been tailored to the water sector and contain relevant teaching examples and group activities. To find a USEPA training location near you and to register, please visit www.epa.gov/watersecurity. The water sector-specific materials used during USEPA's in-person classes are also available online at http://cfpub.epa.gov/safewater/watersecurity/publications.cfm. If you hold a supervisory or management role within your utility, more training is recommended. For example, utility personnel who serve as first-line supervisors or in management roles should also complete ICS-200a level training. Complete details on required courses and who at your utility should complete them can be found in the NIMS: Five Year Training Plan, available at http://www.fema.gov/emergency/nims/nims_training.shtm.

Exercises

Exercises comprise the last element of preparedness. NIMS components, such as the use of ICS, should be incorporated into all exercises, and all first responders need to participate in exercises. Many preparedness organizations, such as Local Emergency Planning Committees (LEPCs) and either county or state EMAs, already plan and conduct all-hazard exercises that incorporate NIMS. It is worthwhile for utilities to reach out to these preparedness organizations and to take part in the exercises they conduct. This will ensure that a utility's ERP coincides with other local Emergency Operations Plans (EOPs). In addition, this participation allows utility staff to take part in professionally facilitated exercises with minimal utility resource expenditure, and, it also allows utility personnel to develop working relationships with other local first responders before an emergency occurs.

Utilities with more resources may wish to consider conducting their own exercises and inviting other first responders to attend. Exercises need to be designed and conducted in accords with the Homeland Security Exercise and Evaluation Program (HSEEP) guidance. Scenarios and exercise materials can be obtained from the USEPA's Water and Wastewater Emergency Response Tabletop Exercises tool at http://www.epa.gov/safewater/watersecurity/tools/trainingcd/. This tool will be updated so that all materials in the tool conform to HSEEP guidance and be posted at http://cfpub.epa.gov/safewater/watersecurity/tools.cfm. Once an exercise is complete, any lessons learned should be captured in a Corrective Action Plan, which then serves as a basis for a utility to update its ERP.

NIMS Implementation Objectives for the Water Sector

Preparedness
Planning
1. Revise Emergency Response Plans (ERPs) to incorporate NIMS principles.
2. Maintain mutual aid and assistance agreements with response partners and participate in a Water and Wastewater Agency Response Network (WARN).
Training
3. Use existing resources for NIMS trainings.
4. Complete IS-100 (ICS) and IS-700 (NIMS).
5. Complete ICS-200, IS-800B (NRF), and ICS-300 as appropriate.
Exercises
6. Incorporate NIMS principles into exercises.
7. Participate in an all-hazards, multi-agency, and multi-jurisdictional exercise program.
Communications and Information Management
8. Use NIMS terminology and clear text.
9. Use tools during an incident or event that promote a common operating picture (e.g., Situation Report or SitRep).
Resource Management
10. Inventory resources and type them according to the AWWA Resource Typing Manual.
11. Purchase interoperable equipment (e.g., radios).
12. Use a WARN program to help obtain needed resources.
13. Participate in jurisdictional credentialing (e.g., first responder ID cards) if applicable.
Command and Management
Incident Command System
14. Use ICS to manage all incidents and events.
Multi-Agency Coordination System
15. Use your jurisdiction's Emergency Operations Center (EOC) for incident support.
Public Information
16. Use the Joint Information System during an incident or event.
17. Ensure that all water use advisories and notices are fully coordinated with other public notifications.

Communications and Information Management

Communications and information management is another area of NIMS that should be implemented. An important aspect of communications is for utilities to use common NIMS terminology and what is referred to as "clear text." Common NIMS terminology includes, for example, using the title "Incident Commander" for the person with overall responsibility for managing an incident. The use of common terminology greatly reduces confusion between jurisdictions and agencies working together during a larger incident, since all first responders across the country are learning the same, common NIMS terminology. "Clear text" refers to the principle that utility personnel should always use plain English when communicating during an incident. Other agencies and jurisdictions are not familiar with your utility-specific acronyms or jargon, and your use

of them will only lead to confusion on larger incidents and when mutual aid and assistance agreements are activated. For example, the acronym "SCADA" is not understood by everyone outside of a utility!

Information management is necessary so that everyone responding to an incident is on the "same page", or shares a common operating picture. One information management tool that already exists and can be readily adopted by utilities is the Situation Report, or SitRep. The SitRep format has been in use for years, and is a proven way to present incident information to others so that a common operating picture can be developed and shared. The daily national SitRep can be found on FEMA's website at http://www.fema.gov/emergency/reports/index.shtm. Another tool that can be used at the local level is the ICS Form 209 - Incident Status Summary.

Resource Management

Resource management, which can be problematic at larger incidents, is another critical area of NIMS implementation. "Resources" refers to utility personnel, equipment, supplies, and materials. Under NIMS, all resources should be "typed," which means that resources are classified by their function (kind) and their performance or capability (type). Once a resource is typed, it is very clear to first responders what resource they are asking for, and, it ensures that the first responder receives the exact resource that he or she requested. Utilities should consider inventorying and typing their resources. This can be done in conjunction with jurisdiction efforts (local, county, or state level), and through the Water & Wastewater Mutual Aid & Assistance Typing Manual produced by the AWWA and available at http://www.nationalwarn.org. Resource inventories can be kept via a hard copy system, such as a card catalog, or via a spreadsheet, database or other digital program, such as the on-line resource lists maintained by many WARN programs.

Another NIMS implementation objective under resource management is purchasing interoperable equipment, such as radios, so that your personnel can readily communicate with other first responders (e.g., police, fire) in their jurisdiction. If your jurisdiction is developing a credentialing system that will help verify the identity and qualifications of emergency personnel responding to an incident, you may want to participate.

Command and Management

The Command and Management component within NIMS is designed to enable effective and efficient incident management and coordination by providing a flexible, standardized incident management structure. The structure is based on three key organizational constructs: the Incident Command System (ICS), Multiagency Coordination Systems (MACS), and Public Information.

Incident Command System

HSPD 5 requires that all domestic incidents be managed under ICS, and utilities can practice using ICS when responding to routine emergencies such as main breaks. This will ensure that utility personnel are familiar with NIMS common terminology and how the ICS functions, which will be an advantage when working with other first responders during a larger incident.

Multi-Agency Coordination System

The primary function of MACS is to coordinate activities above the field level and to prioritize the incident demands for critical or competing resources, thereby assisting the coordination of the operations in the field. MACS consists of a combination of elements: personnel, procedures, protocols, business practices, and communications integrated into a common system. For the purpose of coordinating resources and support between multiple jurisdictions, MACS can be implemented from a fixed facility (such as an Emergency Operations Center or "EOC") or by other arrangements outlined within the system. Utilities should learn the location of and how to contact the EOC that serves their community. The EOC, in addition to the WARN, can help a utility to obtain resources needed during an incident.

Public Information

If public information or notices (e.g., water use advisories) are to be disseminated during an incident, NIMS principles regarding public information should be followed. Namely, a Public Information Officer (or individual serving in that capacity) prepares the notification, which is then approved by the Incident Commander prior to issuance. At larger incidents, the Public Information Officer may need to coordinate the utility's public notice with that of others. The bottom line is that a clear, consistent message needs to go to the public from all agencies and jurisdictions taking part in public notifications.

NIMS implementation may appear daunting, but in actuality it relies on many best practices already in use by water and wastewater utilities as well as other agencies and jurisdictions. These best practices have been adopted under NIMS so that mutual aid and assistance can be as effective as possible.

To learn more about NIMS, please visit:

http://www.epa.gov/watersecurity
(click on "Emergency/Incident Planning" and scroll down to NIMS)

http://www.fema.gov/emergency/nims
(FEMA's official NIMS website)